

ITW-

Practitioner's Docket No.: 920\_090

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Here the application of: ODAKA, Tsuaki; IESHIGE, Munenori; MAEDA, Mitsuru;  
HIROTA, Kenichi; and YUKI, Masahiro

Serial No.: 10/586,171

Group Art Unit: Not assigned

Filed:

Examiner: Not assigned

Conf. No.: 2831

For: THERMAL TRANSFER SHEET

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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**Alexandria, VA 22313-1450,** on November 8, 2006.

*Janet M. Stevens*  
Janet M. Stevens

SUBMISSION OF ENGLISH TRANSLATION OF INTERNATIONAL  
PRELIMINARY REPORT ON PATENTABILITY

Sir:

Applicants submit herewith an English translation of the International Preliminary  
Report on Patentability dated 31 August 2006 in connection with the above-identified  
application.

Respectfully submitted,

November 8, 2006

Date

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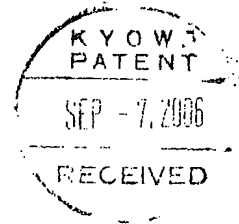
From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

To:

YOSHITAKE, Kenji  
Kyowa Patent & Law Office  
Room 323, Fuji Bldg.  
2-3, Marunouchi 3-chome  
Chiyoda-ku, Tokyo 1000005  
JAPON



Date of mailing (*day/month/year*)  
31 August 2006 (31.08.2006)

Applicant's or agent's file reference  
152199-268

**IMPORTANT NOTIFICATION**

International application No.  
PCT/JP2005/000700

International filing date (*day/month/year*)  
20 January 2005 (20.01.2005)

Applicant

DAI NIPPON PRINTING CO., LTD. et al

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

**2. Transmittal of the copy of the translation to the designated or elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Yoshiko Kuwahara

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# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 152199-268	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/JP2005/000700	International filing date ( <i>day/month/year</i> ) 20 January 2005 (20.01.2005)	Priority date ( <i>day/month/year</i> ) 20 January 2004 (20.01.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant DAI NIPPON PRINTING CO., LTD.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
2. This REPORT consists of a total of 7 sheets, including this cover sheet.  
  
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Box No. I    | Basis of the report   |
| <input type="checkbox"/> Box No. II              | Priority  |
| <input type="checkbox"/> Box No. III             | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input checked="" type="checkbox"/> Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI              | Certain documents cited   |
| <input checked="" type="checkbox"/> Box No. VII  | Certain defects in the international application  |
| <input checked="" type="checkbox"/> Box No. VIII | Certain observations on the international application   |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

Date of issuance of this report  
22 August 2006 (22.08.2006)

Authorized officer

Yoshiko Kuwahara

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The International Bureau of WIPO  
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Form PCT/IB/373 (January 2004)

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**152199-268**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2005/000700**

International filing date (day/month/year)

**20.01.2005**

Priority date (day/month/year)

**20.01.2004**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**DAI NIPPON PRINTING CO., LTD.**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000700

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000700

Box No. IV

Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:

- ☒ paid additional fees  
☐ paid additional fees under protest  
☐ not paid additional fees

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with  
☒ not complied with for the following reasons:

1. The inventions of claims 1-6 relate to a thermal transfer sheet comprising a heat-resistant lubricant layer, an adhesive layer containing a modified polyvinyl pyrrolidone resin and a sugar or a sugar alcohol, and a dye layer.

2. The inventions of claims 7-9 relate to a thermal transfer sheet comprising a heat-resistant lubricant layer, an adhesive layer containing a polyvinyl pyrrolidone resin and a complex forming agent, and a dye layer.

3. The inventions of claims 10-12 relate to a thermal transfer sheet comprising a heat-resistant lubricant layer, an adhesive layer containing a polyvinyl pyrrolidone resin and a modifying agent, and a dye layer.

4. The inventions of claims 13-16 relate to a thermal transfer sheet comprising a heat-resistant lubricant layer, an adhesive layer containing a polyvinyl pyrrolidone resin, a component (A) and a component (B), and a dye layer.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

- ☒ all parts  
☐ the parts relating to claims Nos. \_\_\_\_\_

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000700

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	4-6, 10-16	YES
	Claims	1-3, 7-9	NO
Inventive step (IS)	Claims	4-6, 10-16	YES
	Claims	1-3, 7-9	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO

2. Citations and explanations:

Document 1: JP, 2003-312151, A (Dainippon Printing Co., Ltd.), 6 November, 2003 (06.11.03), full text, all drawings, & EP, 1338433, A1, & US, 2003/0181331, A1

Document 2: JP, 5-131760, A (Eastman Kodak Company), 28 May, 1993 (28.05.93), full text, & US, 5147843, A, & EP, 513800, A1

Document 3: JP, 7-179072, A (Eastman Kodak Company), 18 July, 1995 (18.07.95), full text, & EP, 655348, A1, & US, 5306691, A

The thermal transfer sheet of the subject matters of claims 1-3 in which an adhesive layer contains a modified polyvinyl pyrrolidone resin does not appear to be novel or to involve an inventive step, since it is described in the examples of document 1 or 2 cited in the ISR.

The thermal transfer sheet of the subject matters of claims 7-9 in which an adhesive layer contains a polyvinyl pyrrolidone resin and a complex forming agent does not appear to be novel or to involve an inventive step, since it is described in the example of document 3 cited in the ISR.

The thermal transfer sheet of the subject matters of claims 4-6 in which an adhesive layer contains a polyvinyl pyrrolidone resin and a sugar or a sugar alcohol is neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.

The thermal transfer sheet of the subject matters of claims 10-12 in which an adhesive layer contains a polyvinyl pyrrolidone resin and a modifying agent is neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.

The thermal transfer sheet of the subject matters of claims 13-16 in which an adhesive layer contains a polyvinyl pyrrolidone resin and a component (A) and a component (B) is neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000700

Box No. VII      Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The "complex forming agent" in claim 11 is an error in writing that should be corrected as "modifying agent".



WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000700

Box No. VIII      Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 7-12 are not supported by the specification.

The complex forming agent or modifying agent of the present invention substantially uses the compound described in paragraph [0053] or [0060], but in claims 7-12, this aspect is not specified, matters that are not actually described are included, and the constitution and scope of the invention are unclear.